10/725,298

REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application is unpatentable under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 1-5 AND 7-10 UNDER 35 U.S.C. § 103

A. Claims 1-2 and 7-9

Claims 1-2 and 7-9 stand rejected under 35 U.S.C. §103 as being unpatentable over the Grimm et al. patent (United States Patent No. 5,828,843, issued October 27, 1998, hereinafter "Grimm") in view of the George et al. patent (United States Patent No. 6,944,645, issued September 13, 2005, hereinafter "George") and further in view of the Modiri et al. patent (United States Patent No. 6,192,401, issued February 20, 1001, hereinafter "Modiri"). In response, the Applicants have amended independent claim 2 in order to more clearly recite aspects of the invention. The rejection with respect to claim 1 is respectfully traversed.

Primarily, the Applicants respectfully submit that none of Grimm, George, and Modiri teaches or suggests the novel invention of creating a single (*i.e.*, unified) feature vector based on a user's communication interest, on network attributes, and on application attributes, as recited by Applicants' independent claims 1 and 2.

By contrast, Grimm teaches measuring or quantifying a user's communication interest, network attributes, and application attributes individually, not as a single feature vector representative of all three metrics. Specifically, Grimm teaches comparing the client and communication attributes of a user to requirements of a "match offer" in order to determine whether the user should be allowed to join a set of users associated with the match offer (Grimm, column 4, lines 18-25). When a first user submits a request to create a game offer, a matchmaker creates a game offer that contains attributes specified by the request. (Grimm, column 10, lines 59-62). When a second user submits a request to be matched to the game offer, a matchmaker first "compares the

5

10/725,298

attributes in the ... request ... with those in [the game offer]..." to determine whether there is a match based on the attributes specified in the first user's request (Grimm, column 11, lines 13-18). Only if it is determined that the second user matches the attributes specified in the first user's request, and after this determination is made, "the [matchmaker] sends to [the second user] a request to measure the communications attributes between [the first user] and [the second user]" (Grimm, column 11, lines 21-23).

In other words, users are matched by comparing a first set of attributes related to the users and their devices (game and match preferences, type of game, hardware and software attributes; Grimm, column 10, lines 44-49), and then, only if the first set of attributes match, comparing a second set of attributes related to the network ("communications attributes" between the users; Grimm, column 11, lines 21-23). Thus, Grimm fails to teach or suggest representing a user by forming a single feature vector that is based on the user's communication interest, network attributes, and application attributes, as recited in the Applicants' independent claims 1 and 2.

George and Modiri fail to bridge this gap in the teachings of Grimm. Specifically, George and Modiri also fail to teach or suggest representing a user by forming a single feature vector that is based on the user's communication interest, network attributes, and application attributes, where this single feature vector may be used for the purposes of comparing two or more users for compatibility in a collaborative application.

The Applicants' independent claims 1 and 2 positively recite:

1.   A method of constructing a multi-type feature vector comprising the steps of:
        obtaining a user's communication interest as represented by at least one of: a user request for a content update or a user subscription to a specific data item or to a set of proximal data sources;
        obtaining network attributes;
        obtaining application attributes; and
        forming a feature vector based on the communication interest, network attributes, and application attributes. (Emphasis added)

6

10/725,298

2.   A method of clustering a multi-type vector space comprising the steps of:
obtaining network attributes from a network having a plurality of nodes;
obtaining application attributes of an application;
obtaining user communication interest as represented by at least one of: a user request for a content update or a user subscription to a specific data item or to a set of proximal data sources;
<u>forming a plurality of feature vectors, one for each of the plurality of nodes, where each of the plurality of feature vectors is based on the user's communication interest, network attributes, and application attributes</u>; and
<u>clustering the plurality of nodes based on the plurality of feature vectors</u>.
(Emphasis added)

As discussed above, Grimm, George, and Modiri, singly or in any permissible combination, fail to teach or suggest the novel invention of <u>creating a single feature vector based on a user's communication interest, on network attributes, and on application attributes</u>, as recited by Applicants' independent claims 1 and 2. Accordingly, the Applicants respectfully submit that independent claims 1 and 2 are not unpatentable over Grimm in view of George and further in view of Modiri and are allowable.

Claims 7-9 depend from claim 2 and recite additional features. As such, and for at least the reasons stated above with respect to claim 2, the Applicants respectfully submit that claims 7-9 are also not unpatentable over Grimm in view of George and further in view of Modiri and are allowable.

B. Claims 3-4 and 15-16

Claims 3-4 and 15-16 stand rejected under 35 U.S.C. §103 as being unpatentable over Grimm in view of George and Modiri and further in view of the Johnson patent (United States Patent No. 6,078,946, issued June 20, 2000, hereinafter "Johnson"). In response, the Applicants have amended independent claim 2, from which claims 3-4 depend, as discussed above in order to more clearly recite aspects of the present invention. Claims 15-16 were cancelled without prejudice in a previous amendment.

7

10/725,298

As discussed above, Grimm in view of George and further in view of Modiri fails to teach or suggest the novel invention of <u>creating a single (*i.e.*, unified) feature vector based on a user's communication interest, on network attributes, and on application attributes</u>, as recited by Applicants' independent claim 2. Johnson fails to bridge this gap in the teachings of Grimm, George, and Modiri. As such, the Applicants respectfully submit that claim 2 is also not unpatentable over Grimm in view of George and Modiri and further in view of Johnson.

Claims 3-4 depend from claim 2 and recite additional features. As such, and for at least the reasons stated above with respect to claim 2, the Applicants respectfully submit that claims 3-4 are also not unpatentable over Grimm in view of George and Modiri and further in view of Johnson and are allowable.

C. Claims 5 and 17

Claims 5 and 17 stand rejected under 35 U.S.C. §103 as being unpatentable over Grimm in view of George and Modiri and further in view of the Solotorevsky et al. patent application (United States Patent Application Publication No. 2005/0010571, published January 13, 2005, hereinafter "Solotorevsky"). In response, the Applicants have amended independent claim 2, from which claim 5 depends, as discussed above in order to more clearly recite aspects of the present invention. Claim 17 was cancelled without prejudice in a previous amendment.

As discussed above, Grimm in view of George and further in view of Modiri fails to teach or suggest the novel invention of <u>creating a single (*i.e.*, unified) feature vector based on a user's communication interest, on network attributes, and on application attributes</u>, as recited by Applicants' independent claim 2. Solotorevsky fails to bridge this gap in the teachings of Grimm, George, and Modiri. As such, the Applicants respectfully submit that claim 2 is also not unpatentable over Grimm in view of George and Modiri and further in view of Solotorevsky.

Claim 5 depends from claim 2 and recites additional features. As such, and for at least the reasons stated above with respect to claim 2, the Applicants respectfully

8

10/725,298

submit that claim 5 is also not unpatentable over Grimm in view of George and Modiri and further in view of Solotorevsky and is allowable.

D. Claim 10

Claim 10 stands rejected under 35 U.S.C. §103 as being unpatentable over Grimm in view of George and Modiri and further in view of the Tang et al. patent application (United States Patent Application Publication No. 2005/0076137, published April 7, 2005, hereinafter "Tang"). In response, the Applicants have amended independent claim 2, from which claim 10 depends, as discussed above in order to more clearly recite aspects of the present invention.

As discussed above, Grimm in view of George and further in view of Modiri fails to teach or suggest the novel invention of <u>creating a single (i.e., unified) feature vector based on a user's communication interest, on network attributes, and on application attributes</u>, as recited by Applicants' independent claim 2. Tang fails to bridge this gap in the teachings of Grimm, George, and Modiri. As such, the Applicants respectfully submit that claim 2 is also not unpatentable over Grimm in view of George and Modiri and further in view of Tang.

Claim 10 depends from claim 2 and recites additional features. As such, and for at least the reasons stated above with respect to claim 2, the Applicants respectfully submit that claim 10 is also not unpatentable over Grimm in view of George and Modiri and further in view of Tang and is allowable.

II. CONCLUSION

Thus, the Applicants submit that all of the presented claims fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all of the presented claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of the final action in any of the claims now pending in the application, it

10/725,298

is requested that the Examiner telephone <u>Kin-Wah Tong, Esq.</u> at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

<u>November 24, 2008</u>
Date

Kin-Wah Tong
Registration No. 39,400
PATTERSON & SHERIDAN, L.L.P.
595 Shrewsbury Avenue
Shrewsbury, NJ 07702
Telephone: (732) 530-9404
Facsimile: (732) 530-9808
Attorney for Applicant(s)

10